GOVERNMENT OF INDIA
POWER
LOK SABHA

UNSTARRED QUESTION NO:1711
ANSWERED ON:28.11.2002
FLUCTUATIONS IN POWER FREQUENCY COST .
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Will the Minister of POWER be pleased to state:

(a) whether there is huge fluctuations in power frequency cost, power utilities and generation stations;

(b) if so, the facts in this regard;

(c) whether due to frequency variation, the electricity consumer had adversely affected;

(d) if so, whether this frequent variation has also resulted in production losses and higher energy costs make their products non-competitive in the international market;

(e) whether these issues have been discussed in the recent meeting of the power sector; and

(f) if so, the outcome of the meeting and the steps suggested in this regard?

Answer

THE MINISTER OF STATE IN THE MINISTRY OF POWER (SHRIMATI JAYAWANTI MEHTA)

(a) to (c) : Huge fluctuations in power frequency, affects power utilities and generating plants connected to the grids and also consumer equipments. Power generating units are designed for operation at standard frequency of 50 Hz/Sec. Fluctuation in grid frequency beyond permissible limits may damage rotating equipments. High frequency operation also causes additional consumption of fuel.

(d) : Wide frequency variation may cause production loss to certain group of consumers. As per available information, no report has been received about the products becoming non-competitive in the international market due to high energy costs on account of frequency variation.

(e) & (f) : Central Electricity Regulatory Commission have already laid an IndianElectricity Grid Code (IEGC) for operating the regional grids. IEGC stipulates operatinggrid frequency between 49.0 Hz. And 50.5 Hz. However, maintenance of grid discipline including frequency profile and other grid related issues are being discussed with State Governments/State Utilities by the Central Electricity Authority/Power Grid/Ministry ofPower from time to time and decisions taken to improve the frequency profile of regional girds. Cooperation of all constituents of all regions is essential for maintaining the grid frequency within the operating band of 49.0 to 50.5 Hz as stipulated in the IEGC.

During the meeting of Power Ministers of States (except NER States) heldon 5th August, 2002 it was emphasized that the States should maintain grid discipline during the period of shortages due to loss of hydel generation on account of less rainfall. Further, the decisions agreed for implementation in the Western Grid by RegionalElectricity Board during the meeting taken by Secretary, Ministry of Power with the Western Region States on 3.8.2002 were reiterated which inter-alia included
(i) load management by states keeping in view the availability of power from all sources through rostering, power cuts etc. so as to maintain grid frequency at 50.0 Hz.
(ii) the Regional Load Dispatch Center (RLDC) should cut supply to the States overdrawing from the gridat frequency below 49.0 Hz. and in case the frequency dips below 48.5 Hz. The RLDCsshould take all steps as deemed fit including cutting loads to even the States that are not overdrawing, to bring back the frequency to 49.0 Hz.

The States were requested to discuss the matter in their respective Regional Electricity Boards and accept the same regime.